The Examiner has now withdrawn the rejection under 35 USC 112 previously made and has withdrawn the rejection of claims 59 to 70 under 35 USC 102(b) as being fully met by Kugele U.S. Patent No. 4,360,619. The sole basis of rejection is now Japanese Patents No. 56-2336 and 55-160044. Further, from the Examiner's indication that claims 63 and 70 would be allowable if rewritten in independent form, it appears that the sole issue in the case relates to the recital in the claims of halogen as a substituent on the tin atom.

The Examiner has considered the affidavit under 37 CFR 1.131 of Michel Foure and has concluded that the affidavit fails to overcome the rejection. The Examiner has stated that the showings do not serve any probative purpose because they fail to establish an earlier reduction to practice of the organotin mercapto carboxylate halide species with a thiol ester. The Examiner went on to state that

> "it is well-known that a 37 CFR 1.131 declaration must show priority with respect to as much as the claimed invention as the reference happens to show."

While the proposition as stated by the Examiner finds support in the decisional law, the Examiner's application of that proposition has been specifically repudiated by the Court of Customs and Patent Appeals.

First, it is useful to consider what Applicants invention is and how the references are used to reject the claims.

From a reading of claim 59 it is clear that the organotin compound of Applicants' claims is, in relevant part, a

> "....mono- or diorgano- derivative of tetravalent tin where the remaining valences of the tin atom are satisfied by bonds to halogen...."

Applicants' claims do not mandate the presence of an organotin mercapto carboxylate halide, although Applicants concede that their claims embrace organotin mercapto carboxylate halides, just as they embrace other mono- and diorganotin halides. The Japanese references are relevant because they teach the use of compounds within the scope of Applicants' claims. Specifically, the Japanese references teach the use of a mono- or diorganotin derivative of tetravalent tin where the remaining valences of the tin atom are satisfied by bonds to halogen....in combination with a mercaptoester. Thus, as the Examiner has indicated, the Japanese references teach a species of organotin halide within the scope of Applicants generic claim.

The Examiner's position is that Applicants must establish the earlier reduction to practice of an organotin mercapto carboxylate halide in combination with a mercaptoester; for this position to be valid, Applicants would have had to have made the exact invention of the references before the references were published. But this is not the law. Applicants urge that the law allows them to antedate the Japanese references by showing reduction to practice of a species within their generic claim prior to the effective date of the Japanese references. This is

the holding of In re Clark, 148 USPQ 665 (CCPA, 1966). The Court stated, page 668:

> "It is clear from In re Shokal,.... that appellant may, by a proper showing, overcome a reference which discloses a species within the generic claim, although he may not be able to show completion of that species prior to the effective date of the reference, where the reference is not a statutory time bar. Thus, indirect antedating of a reference is permitted in a proper case."
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> * * * * * *
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> "We believe the rule in Stempel supplements our decision in In re Shokal, supra, and that the rule for antedating references is not limited to fact situations where the inventor can show priority as to the identical compound described in the reference." (Page 670).

In In re Tanczyn, 146 USPQ 298, 300 (CCPA, 1965) the Court stated:

> "In Stempel the applicant successfully overcame the reference as to both generic and species claims by showing priority only as to the species shown by the reference. It was, however, a species of the claimed generic invention. The species of the reference and affidavit was sufficient to anticipate the generic claims of the application. Thus, in addition to establishing priority as to the species of the reference the Stempel affidavit also disclosed completion of the invention although admittedly not in the broad generic form. The reduction to practice shown was of a species of the invention within the generic claims.

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> It must be remembered that in Stempel the dispute was whether it was completion of the claimed invention - specifically, the genus of the generic claims - that had to be established prior to the date of the reference, and we held that it did not where the reference did not disclose that invention but only a species within it."

It is clear that the case law relating to 37 CFR 1.131 squarely deals with whether an applicant must show completion of the claimed generic invention prior to the date of a reference and answers the question in the negative; an applicant need only show reduction to practice of a species of his claimed generic invention where the reference only shows a species, and the applicants species can be different from the species of the reference.

Applicants have shown the prior reduction to practice of a species of organotin halide and mercaptoester within the scope of their claims and it is urged that under the relevant precedents such reduction to practice suffices to antedate the references of record.

Further, Applicants invention does not relate to organotin stabilizers per se; rather, their invention relates to the proposition that performance of the known organotin stabilizers is enhanced by the use of a very specific kind of mercaptoester. This is seen, for example, from claim 59, which is a Jepson-type claim. Organotin halides have been well-known stabilizers for vinyl halide resins, as demonstrated by the Supplemental Affidavit of Michel Foure. Their use would immediately be suggested to one reasonably skilled in the art; any doubts

in respect of efficacy were dispelled by the work done by Dr. Foure prior to the effective dates of the references.

The Examiner has concluded that the affidavit under 37 CFR 1.131 of Michel Foure fails to overcome the rejection.

Enclosed herewith are declarations under 37 CFR 1.131 by Jean-Claude Mendelsohn and Jean-Yves Chenard, the inventors, and a supplemental declaration by M. Foure under 37 CFR 1.131. There are also enclosed declarations of Philip E. Rakita and William A. Larkin under 37 CFR 1.132. These declarations are entitled to entry under 37 CFR 1.116(b) because they go to the comments made by the Examiner in refusing to accord the previous declaration by Michel Foure any probative value; the declarations were deemed necessary only after the Examiner had an opportunity to consider and comment on the previous declaration of Michel Foure.

The Supplemental Declaration of Michel Foure is to the effect that he is intimately familiar with the invention of Chenard et al relating to the use of certain mercaptoesters in conjunction with an organotin stabilizer to stabilize polyvinyl chloride with respect to heat and that it was his opinion that a reasonably skilled chemist familiar with the art and literature related to stabilization of PVC would know that a variety of organotin compounds in addition to the compounds specifically named in the Chenard et al French Patent could successfully be used in combination with the described mercaptoesters. Dr. Foure states it was his belief that halogen-containing organotin compounds could successfully be used in combination with the described mercaptoesters and that his

opinion was based on his familiarity with the work of Chenard et al and with the prior art which includes 13 prior art references. Dr. Foure states that his belief that halogenated organotin compounds could be used in combination with mercaptoesters to obtain improved performance was confirmed by the experimental work described in his affidavit previously submitted under 37 CFR 1.131.

The declarations of Jean-Claude Mendelsohn and Jean-Yves Chenard, the inventors, are to the effect that they conceived and reduced to practice the broad idea of the generic invention described in French Patent Application No. 78-24863 filed August 29, 1978, that the generic invention is contained in the claims of their French Patent Application, that their conception of the invention relates to an improvement in the use of metal compounds to stabilize halogen-containing resins; the improvement involves addition of an ester of a mercapto alcohol and a carboxylic acid. Their conception of the invention as it relates to organotin compounds embraces the field of useful organotin stabilizers and it was never their idea that certain types of organotin compounds such as the halogen-containing organotin compounds, which were in themselves known to be useful stabilizers, were to be excluded from the scope of their conception. Their conception of the scope of the invention included the obvious and well-known halogen substituted organotin stabilizers. The work done on their behalf by Michel Foure confirmed that their invention was indeed effective when the organotin compound contains halogen, the inventors were fully aware of the work conducted by Michel Foure in the United States in connection with the combination of halogen-containing organotin compounds and

mercaptoesters, this work was done in close consultation with them and represents an embodiment of their invention as described in French Patent Application No. 78-24863 and described and claimed in the present application. These declarations by the Applicants go specifically to the Examiner's comments that there is no confirmation by the Applicants that Dr. Foure had performed the work described on their behalf prior to the references' effective dates.

The affidavits of Philip E. Rakita and William A. Larkin are to the effect that it is their opinion that a chemist familiar with the use of organotin compounds as PVC stabilizers would recognize first, that the mercaptoesters could be used in conjunction with a large number of organotin PVC stabilizers to improve the performance of the stabilizer and, second, that the well-known halogen-containing organotin stabilizers are among the compounds with which the mercaptoesters can be used. They read the declaration of Michel Foure dated December 19, 1983 and are of the opinion that the experimental work described in that declaration confirms the proposition that the mercaptoesters can be used to improve the stabilizing performance of halogen-containing organotin compounds and further, that any chemist familiar with the art of PVC stabilization who is acquainted with Chenard et al French Patent No. 2434835 and the experimental work described in the declaration of Michel Foure would know that the halogen-containing organotin compounds were a useful subclass falling within the class of organotin compounds with which the mercaptoesters described by Chenard et al could be used.

Turning to the Examiner's comments it is respectfully submitted that, although confirmation by the Applicants that Michel Foure performed the work described on their behalf is not necessary, the affidavits of Chenard and Mendelsohn clearly and unambiguously provide such confirmation. The inventors clearly state that the work of Michel Foure was done on their behalf and that such work confirmed that their invention was indeed effective where the organotin compound contains halogen. Further, the inventors state that they were fully aware of the work conducted by Michel Foure in the United States in connection with the combination of halogen-containing organotin compounds and mercaptoesters, that this work was done in close consultation with them and that it represents an embodiment of their invention as described in French Patent Application No. 78-24863 and described and claimed in the present application.

The Examiner has stated

> "In any event applicants expansion of the stabilizer compound's disclosure by filing the instant application is indicative that they themselves considered the earlier applications' disclosure unsupportive of the scope of the organotin compounds previously as well as presently claimed. Accordingly, establishment of an earlier generic concept encompassing the use of the references' organotin mercapto carboxylate halides in combination with the thiol ester has not been presented."

Applicants have demonstrated, on the basis of In re Clark and In re Tanczyn, that the Examiner's position is inconsistent with established legal precedent. Applicants have also noted that organotin stabilizers for vinyl halide

resins are a well-known class of compounds; this proposition is reflected in claim 59 which is a Jepson-type claim, consistent with 37 CFR 1.75(e), was reflected in original claims 1 and 21 of the present application which read:

1. In a method for stabilizing a vinyl halide polymer against heat and light which comprises incorporating a metal-containing stabilizer therein, the improvement which comprises replacing part of the metal-containing stabilizer with an optionally substituted mercaptohydrocarbylene carboxylate.

21. In a method for stabilizing a vinyl halide polymer against heat and light which comprises incorporating a tin-containing stabilizer therein, the improvement which comprises replacing part of the tin-containing stabilizer with a substituted or unsubstituted mercaptoloweralkanol ester of a carboxylic acid containing from 8 to 20 carbon atoms.

and was reflected in claims 1 and 4 of their French priority application which read:

1. Improvement in the stabilisation to heat, shock and light of resins containing a halogen, by the addition of one or more metal compounds, which consists in incorporating also into the resin an organic additive having a mercaptan function, characterised in that this additive is an ester of an organic acid, in which the mercaptan function is connected to a carbon atom of the alcohol residue of the ester.

4. Improvement according to any of claims 1 to 3, in which the metal compound is a derivative of tin, antimony, zinc, magnesium or other alkaline earth metal or an alkali metal.

Since 1978, Applicants have believed one aspect of their invention to be an improvement in the use of well-known materials as heat stabilizers for vinyl halide resins. Further, there is no basis to believe that the improvement obtained from the mercaptoester would not be obtained with any of the art-recognized organotin stabilizers. Applicants are entitled to the benefit of what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, and to this end the supplemental declaration of Dr. Foure and the 13 appended references are germane since they illustrate the knowledge of the art with respect to the use of organotin halides as stabilizers.

The Examiner has provided no basis for excluding the organotin halides from the scope of Applicants claims; the declarations under 37 CFR 1.131 by the Applicants indicates that their conception embraced the field of useful organotin stabilizers and that it was never their idea to exclude the organotin halides from the scope of their conception.

The Examiner's statements about what the Applicants considered their invention to be is refuted by the Applicants themselves, by the claims originally filed in the present application and by the claims originally filed in their priority application.

From the foregoing remarks it is apparent that the sole remaining issue in this case has been resolved and that this application is in condition for allowance.

Respectfully submitted,

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Date

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